PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Dr. Rudolf RIGLER

Group Art Unit: Unknown

Application No.: Concurrently herewith

Examiner: Unknown

Filed: December 19, 2001

Attorney Dkt. No.: 100564-00042

For: METHOD TO DISTINGUISH WHETHER AN EVENT SEQUENCE IS A MEMORY DRIVEN EVENT SEQUENCE OR IS NAT A MEMORY DRIVEN EVENT SEQUENCE

PRELIMINARY AMENDMENT

Commissioner for Patents
Washington, D.C. 20231

December 19, 2001

IN THE SPECIFICATION

Sir:

Please amend the specification by inserting before the first line the sentence --This nonprovisional application claims the benefit of U.S. Provisional Application No. 60/257,146, filed December 22, 2000. - -

IN THE CLAIMS:

Please amend claims 8, 10 and 11 as follows:

8. (Amended) Method according to claim 6 for analyzing of catalytic complexes, characterized in that

a) it is decided that the fluorescence events observed are due to characteristics of the catalytic complex if the sequence of fluorescence events is a memory driven sequence of events and

b) it is decided that the fluorescence events observed are due to contaminating nucleotides or other background signals, if the sequence of fluorescence events is not a memory driven sequence of events.

10. (Amended) Method according to claim 8, characterized in that the catalyst is selected from biomolecules, e.g. enzymes, inorganic molecules and organic molecules.

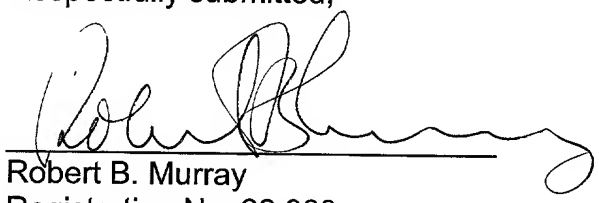
11. (Amended) Method according to claim 5 wherein an oscillating process is analyzed.

REMARKS

Claims 1-11 are pending in this application. By this Amendment, claims 8, 10 and 11 are amended to delete multiple dependency. No new matter is contained in the amendments.

Please charge any fee deficiency or credit any overpayment to Deposit Account No. 01-2300.

Respectfully submitted,



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5. Method according to claim 4 to discriminate an event sequence from a single molecule against an event sequence from background processes or noise,

characterized in that

a) it is decided that the event sequence is due to a single molecule, if it is a memory driven event sequence,

b) it is decided that the event sequence is due to background processes or noise, if it is a non-memory driven event sequence.

6. Method according to claim 5 for single molecule sequencing,

characterized in that

a) it is decided that the fluorescence events observed are due to nuclease-liberated nucleotides if the sequence of fluorescence events is a memory driven sequence of events and

b) it is decided that the fluorescence events observed are due to contaminating nucleotides or other background signals, if the sequence of fluorescence events is not a memory driven sequence of events.

7. Method according to claim 6, characterized in that the fluorescence events are observed in a confocal microscope.

8. Method according to claim 6 or 7 for analyzing of catalytic complexes, characterized in that

a) it is decided that the fluorescence events observed are due to characteristics of the catalytic complex if the sequence of fluorescence events is a memory driven sequence of events and

b) it is decided that the fluorescence events observed are due to contaminating nucleotides or other background signals, if the

sequence of fluorescence events is not a memory driven sequence of events.

9. Method according to claim 8, characterized in that the catalytic complex comprises a catalyst, a substrate being converted to a product and optionally a cosubstrate.

10. Method according to claim 8 or 9, characterized in that the catalyst is selected from biomolecules, e.g. enzymes, inorganic molecules and organic molecules.

11. Method according to one of the claims 5 - 10 wherein an oscillating process is analyzed.